



AIWA CO.,LTD
UTSUNOMIYA FACTORY

2620, TOKUJIROU-MACHI, UTSUNOMIYA-SHI, TOCHIGI 321-21, JAPAN

SERVICE TECHNICAL INFORMATION

ONE POINT REPAIR

UTSUNOMIYA, APRIL 30, 1996
REF. NO. : SI-96-006
CUSTOMER RELATIONS & SERVICE DIV.

MODEL : AM - F3
SUBJECT : Improving servo operations when recording
SYMPTOM : Because servo operations during recording are sometimes unstable, when playing the disc after recording, there are cases in which the recording was made in a dropout condition.
REMEDY : In order to improve servo operations, replace the 5 parts listed below.
(Refer to the figure on the next page for the arrangement of parts on the board.)

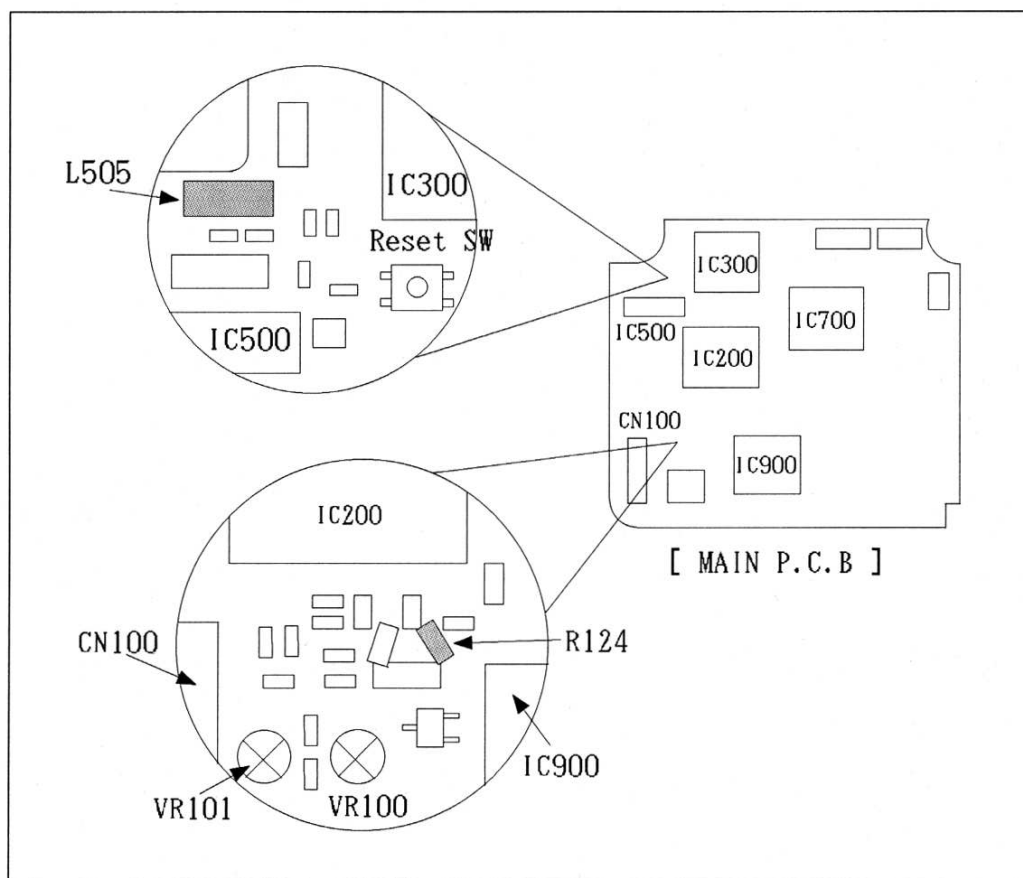
Part No.	Part Name	Contents	Ref. No.
87-A50-108-080	C-COIL 33 μ H	10 μ H \rightarrow 33 μ H	L505
87-010-787-080	C-CAP 0.022 μ F	0.047 μ F \rightarrow 0.022 μ F	C120
87-010-829-080	C-CAP 0.047 μ F	0.1 μ F \rightarrow 0.047 μ F	C121
88-108-183-080	C-RES 470K- 1/16W	680K and 390K Ω \rightarrow 470K Ω	R100
—	—	Remove 18K Ω	R124

Notes

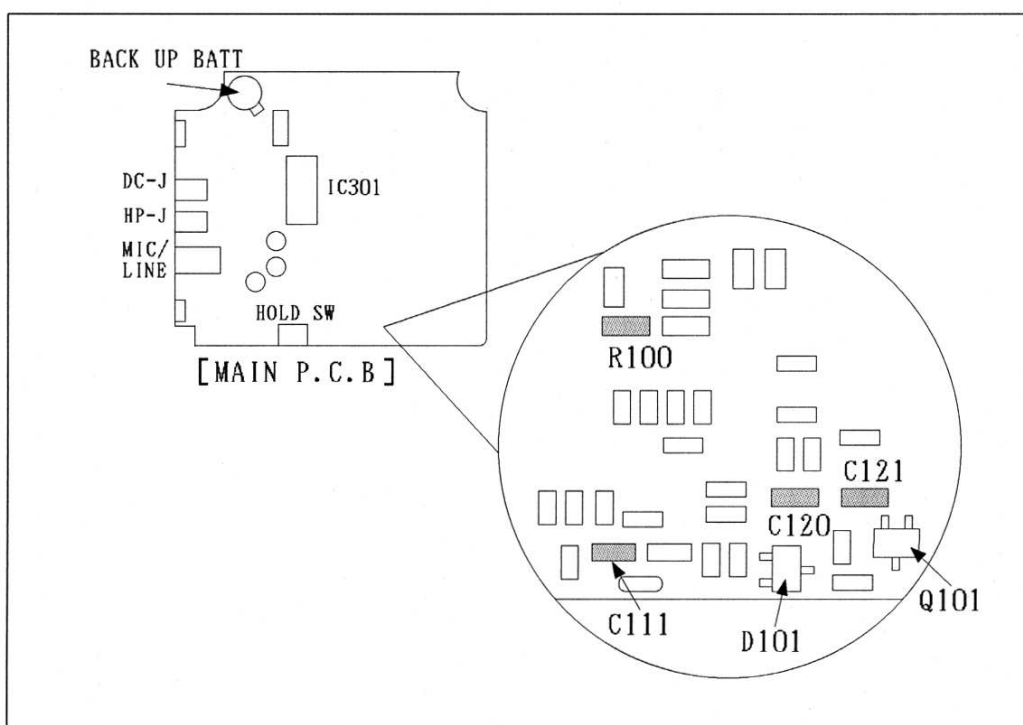
- By performing this remedy, the following 2 problems will also be improved.
 - "TOC read is slow" and "F-SKIP/B-SKIP is slow" for the record / play disc (MO disc).
 - Sometimes does not record (can not access U-TOC when recording).
- If dropout occurred for discs recorded before this remedy, dropout will occur when using these discs, even after this remedy is performed, because the discs were recorded under conditions in which the sound was jumping.
- Modifications have already been made for sets produced as of April of 1996, and for a portion of the sets produced before this date. Modified sets produced before April of 1996 (serial No.: 01C-63~) have a black point (●) at the end of their serial numbers. Sets produced as of April of 1996 do not have this black point.

PARTS LAYOUT

「BOARD Top surface」



「BOARD Bottom surface」



SERVICE TECHNICAL INFORMATION

ONE POINT REPAIR

UTSUNOMIYA, JUNE 15, 1996
REF. NO. : SI-96-011
CUSTOMER RELATIONS & SERVICE DIV.

MODEL : AM-F3
SUBJECT : Occasional dropout (microcomputer upgrade)
CONTENTS : Occasional dropout occurs (during play / record). Perform the following remedy for the relevant sets. Confirmation is very difficult because the symptom occurs in aluminum discs that can only play and in MO discs that play and record. For this reason, always perform this remedy when the customer indicates such a problem, even if the symptom does not occur.

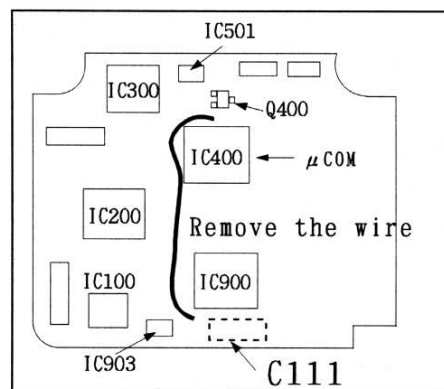
REMEDY : Replace Ref: IC400 with the new microcomputer (CXP81840-503). (Presently, 3 types of microcomputers are installed.)

Previous Microcomputer		➡	New Microcomputer	
Part No.	Model No.		Part No.	Model No.
85-HM1-601-010	CXP81840-115		85-HM1-601-210	CXP81840-503
85-HM1-601-110	CXP81840-502			

The new microcomputer has improved servo operations during play / record, as well as improvement in U-TOC access and writing. Therefore, performance should be improved after making this repair. SPC will now only stock the new microcomputer (the previous microcomputer is no longer kept in stock). When replacing the microcomputer, be aware of the points mentioned below.

Notes:

- ① The previous microcomputer and the new type have upper compatibility. However, their circuit configurations are different and so the circuit modification shown below must be performed.
 1. Remove one wire from the sets with CXP-81840-115.
(See figure on the right.)
 2. Replace C111 0.1μF with resistor 1KΩ
(C111 is on the bottom side of the board. Check with S/M for the positioning of the parts.)
[Part No.: Resistor 1KΩ 88-108-102-080]
 3. For improved servo operations and to achieve compatibility, always perform the steps outlined in **Service Technical Information** "SI-96-006" after replacing the microcomputer.
- ② The new type CXP-81840-503 has been in stock for the 5/96 production lot. There are also some sets produced before 5/96 in which these modifications were made at the factory before shipping. For these sets, a blue dot [•] has been added after the model number or unit serial number printed on the outer packaging.



Parts position



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UTSUNOMIYA, JULY 15, 1996

REF. NO. : SI-96-016

CUSTOMER RELATIONS & SERVICE DIV.

MODEL : Portable digital devices such as AM-F3

SUBJECT : Providing a new fiber-optic cable

CONTENTS : A 3.5 ϕ pin jack is used as the optical input jack in portable digital devices such as MD and DAT. However, a square optical output jack is generally used in the source-side devices (CD player, audio devices, etc.). Because such fiber-optic cables with both types of jacks are becoming more common on the market, and because many service engineers have told us that it is still difficult to obtain such cables, we will now be providing a fiber-optic cable with a 3.5 ϕ mini plug and a square plug. This cable will be provided as a jig.

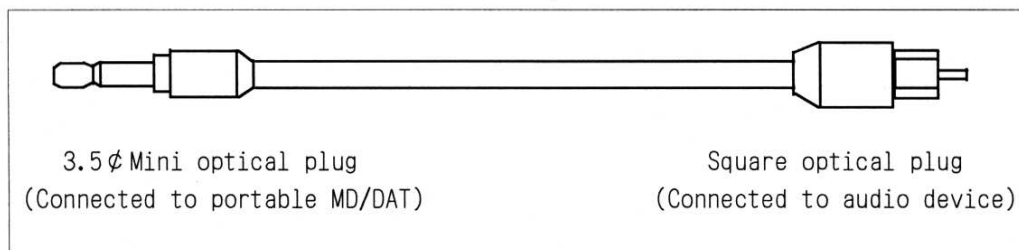
DETAILS

Part No. : 82-HM1-202-010

Name : CABLE OPTICAL

Price : US\$ 8.00

Length : 1 m



Fiber-Optic Cable Schematic Diagram

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UTSUNOMIYA, JUNE 15, 1997
REF. NO.: S1-97-012
CUSTOMER RELATIONS & SERVICE DIV.

MODELS: AM-F3
SUBJECT: PICK UP flexible cable disconnection
CONTENTS: For the above model, there are cases in which operations become faulty due to a disconnection of the PICK UP flexible cable. When repairing units with this symptom, the unit may again need to be repaired after a short time if only the PICK UP is replaced. For this reason, the following procedure should also be performed whenever the PICK UP is replaced.

The PICK UP flexible cable is located between the PICK UP main body (mechanism section) and the main board. When a shock or vibration is applied to the set, the mechanism will momentarily lower causing the PICK UP and board to press against the flexible cable.
(Because the mechanism is supported by a rubber damper, it only presses against the flexible cable momentarily.)
It is likely that the cornered section of R102 (chip resistor) on the board causes damage to the flexible cable.

METHOD: Change the position of R102. Change the flexible cable so that stress will not be applied even when pressing against the cable. Remove R102 from the rear side of the board (prescribed position), and connect (line) between the C101(+) terminal and RV101 on the front side of the board. (See the figure below.)

Note: After moving R102, there may be some sections of solder remaining at the location from which the resistor was removed. If this solder remains, it is likely to cause similar faulty operations. Always confirm that all of the solder has been removed after removing the resistor.

